

# Certificate of Analysis




Verification Key: F59I74QBPWPH

## PEPTIDE TEST



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Fast, Clear, Reliable Results  
For Informed Decisions  
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|                   |   |                 |             |
|-------------------|---|-----------------|-------------|
| Compound:         | Tirzepatide   | Analysis Date:  | 20-Sep-2024 |
| CAS:              | 2023788-19-2  | Client:         | BAU         |
| Manufacturer:     | Zhejiang Zhaobo Technology  |                 |             |
| Client Sample ID: | 68521   |                 |             |
| Lot:              | TZ 30mg 1 vial  | Test Reference: | 2409004     |
| Photo of Sample:  |  |                 |             |

| Sample Testing   | Test Method | Range / Cutoff | Result  |
|--|-------------|----------------|---------|
| Sample Mass (mg)   | TM-1001     | N/A            | 35.30mg |
| Compound Purity  | TM-1001     | N/A            | 99.703% |
| Identification by Retention Time                               | TM-1001     | 0.98 - 1.02    | 1.00    |
| Identification by UV Spectral Comparison to Reference Standard | TM-1001     | ≥ 950          | 1000    |

- Sample Mass: This is the amount of the compound in the vial we tested determined by HPLC analysis.
- Compound Purity: This is purity of the sample, calculated including peaks around the compound that may be impurities.
- Identification by Retention Time: This is an identification test in which the retention time of the sample is compared to the average retention time of five reference standard injections.
- Identification by UV Spectral Comparison to Reference Standard: This is an identification test in which the UV spectrum of the sample is compared to the UV spectrum of the standard.

## Certificate of Analysis

| Testing System Suitability | Test Method | Acceptance Criteria                       | Result |
|----------------------------|-------------|---|--------|
| HPLC Control Value         | TM-1001     | Standard Bracket Area<br>$RSD \leq 2.0\%$ | 0.2%   |
| Coelution Control Value    | TM-1001     | > 950                                     | 999    |

- HPLC Control Value: This value shows that the HPLC system was running properly throughout your testing. The %RSD of the standard injections performed before your sample and the standard injection performed after your sample is calculated to ensure there were no system errors during your run. Although system errors such as leaks, a line running dry, air bubbles, etc. are rare, it's important that we demonstrate no errors occurred during analysis.
- Coelution Control Value: **NOTE:** This value is not purity of the compound - the peak is pure compound as it was separated out by the HPLC. This value demonstrates that there is no co-elution occurring during analysis. We receive samples from a multitude of manufacturers and each has their own recipe (stabilizers, solubilizers, fillers, etc) in their process. This measurement ensures that none of these other components interfere with the analysis. In short, this number confirms that the method is working properly and only analyzing the target compound.

### Important Analytical Information Notice

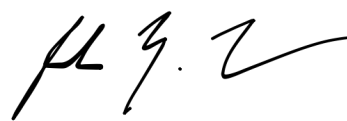
The analytical results detailed herein pertain solely to the presence of the specified compounds in the samples as submitted. These results are generated by our independent partner laboratory. It is acknowledged that all prepared lyophilized peptide products and any other tested material may include stabilizers, solubilizers, fillers, and other excipients and ingredients, which are not tested for unless explicitly noted in the testing agreement and this Certificate of Analysis (COA). The results provided do not imply suitability for any specific use or purpose, and testing is limited to the listed compounds unless noted herein. Clients and other users are advised that the responsibility for determining the applicability of these results for any use rests entirely with them. It is imperative that any users of this information consult with a physician prior to using any peptide or other compound. Peptides or other compounds sold for "research purposes" may not be suitable for human use. Any liability for the provided analytical results is confined to the procedural adherence of our partner laboratory to recognized professional standards during the testing process.

Created By:



Ashlee Lust 21-Sep-2024

Reviewed By:



Joshua Lust 21-Sep-2024

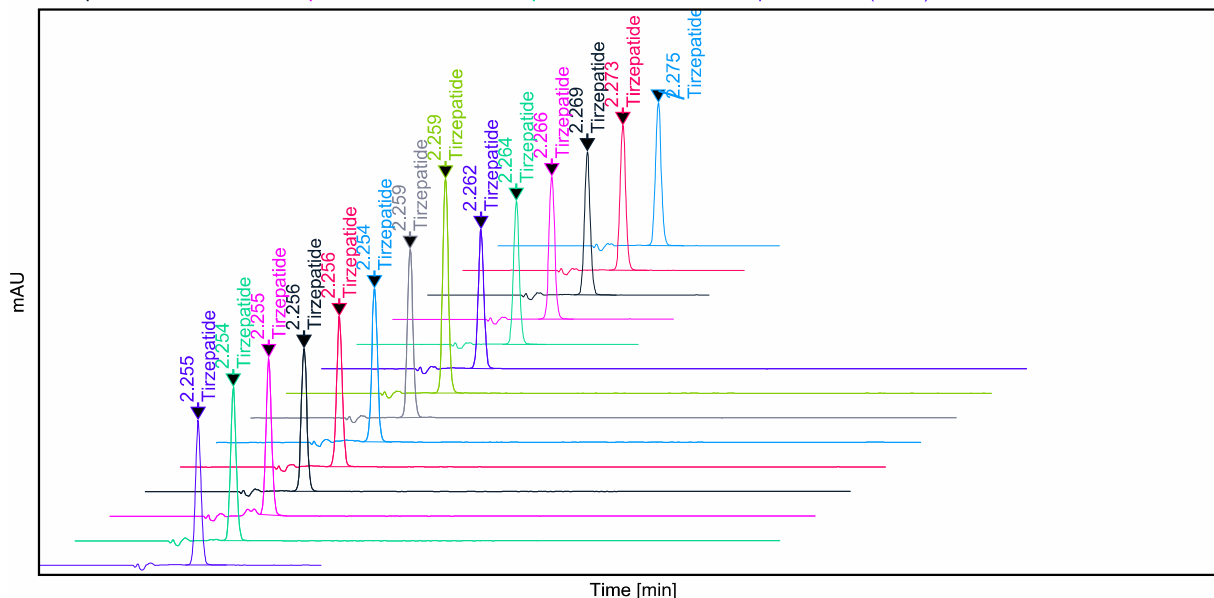
# Sample Potency and ID Report



Sequence Name 1001\_aml\_092024

Sequence Acquired Date 2024-09-20 10:18:03-04:00

Tirzepatide Std - 1      Tirzepatide Std - 2      Tirzepatide Std - 3      Tirzepatide Std - 4      Tirzepatide Std - 5  
 Sample ID SPL-0024      Sample ID 2409004      Sample ID 2409017      Sample ID 2409035      Sample ID 2409036  
 Sample ID 2409037      Sample ID SPL-0038 - 1      Sample ID SPL-0038 - 2      Tirzepatide Std 6 (SSC1)



| Sample Name              | Name        | RT    | Area  | Amount | Unit | Sample Multipliers | UV Match Factor | Peak Purity |
|--------------------------|-------------|-------|-------|--------|------|--------------------|-----------------|-------------|
| Tirzepatide Std - 1      | Tirzepatide | 2.275 | 97.6  | 8.28   | %    | 1;1;1;1;1          | 1000            | 1000        |
| Tirzepatide Std - 2      | Tirzepatide | 2.273 | 97.8  | 8.62   | %    | 1;1;1;1;1          | 1000            | 1000        |
| Tirzepatide Std - 3      | Tirzepatide | 2.269 | 97.8  | 8.94   | %    | 1;1;1;1;1          | 1000            | 1000        |
| Tirzepatide Std - 4      | Tirzepatide | 2.266 | 97.7  | 9.25   | %    | 1;1;1;1;1          | 1000            | 1000        |
| Tirzepatide Std - 5      | Tirzepatide | 2.264 | 98.0  | 9.59   | %    | 1;1;1;1;1          | 1000            | 1000        |
| Sample ID SPL-0024       | Tirzepatide | 2.262 | 94.4  | 123.16 | %    | 13.33333;1;1;1;1   | 1000            | 1000        |
| Sample ID 2409004        | Tirzepatide | 2.259 | 144.3 | 117.67 | %    | 8.33333;1;1;1;1    | 1000            | 999         |
| Sample ID 2409017        | Tirzepatide | 2.259 | 113.1 | 92.27  | %    | 8.33333;1;1;1;1    | 1000            | 1000        |
| Sample ID 2409035        | Tirzepatide | 2.254 | 104.3 | 102.09 | %    | 10;1;1;1;1         | 1000            | 1000        |
| Sample ID 2409036        | Tirzepatide | 2.256 | 102.6 | 100.40 | %    | 10;1;1;1;1         | 1000            | 1000        |
| Sample ID 2409037        | Tirzepatide | 2.256 | 96.5  | 94.45  | %    | 10;1;1;1;1         | 1000            | 1000        |
| Sample ID SPL-0038 - 1   | Tirzepatide | 2.255 | 105.5 | 103.27 | %    | 10;1;1;1;1         | 1000            | 1000        |
| Sample ID SPL-0038 - 2   | Tirzepatide | 2.254 | 103.7 | 101.54 | %    | 10;1;1;1;1         | 1000            | 1000        |
| Tirzepatide Std 6 (SSC1) | Tirzepatide | 2.255 | 97.9  | 9.59   | %    | 1;1;1;1;1          | 1000            | 1000        |

# Sample Potency and ID Report



PEPTIDE TEST



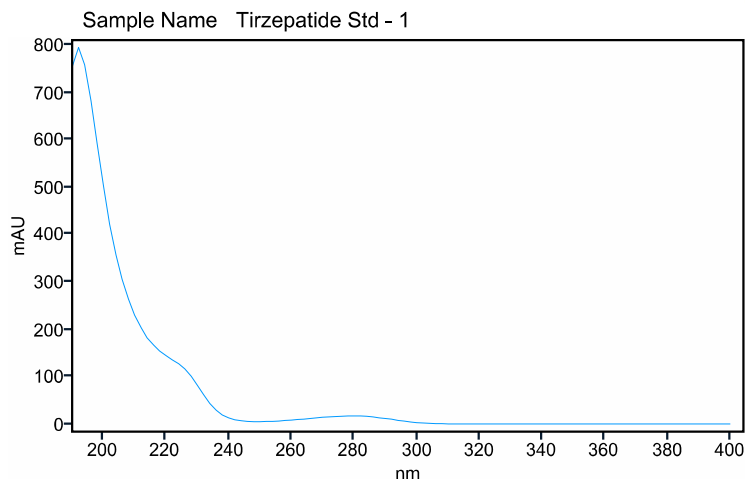
## UV Match Spectra

RT:

2.275

Compound Name:

Tirzepatide



Compound Spectra Confirm Result Confirmed

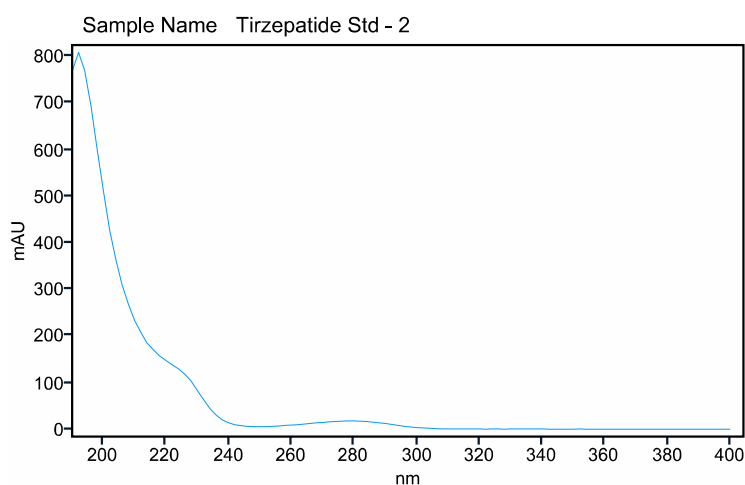
## UV Match Spectra

RT:

2.273

Compound Name:

Tirzepatide



Compound Spectra Confirm Result Confirmed

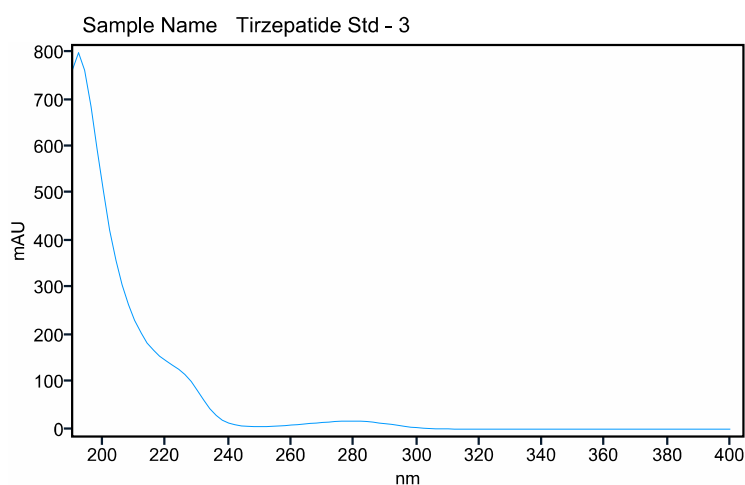
## UV Match Spectra

RT:

2.269

Compound Name:

Tirzepatide



Compound Spectra Confirm Result Confirmed

# Sample Potency and ID Report



PEPTIDE TEST



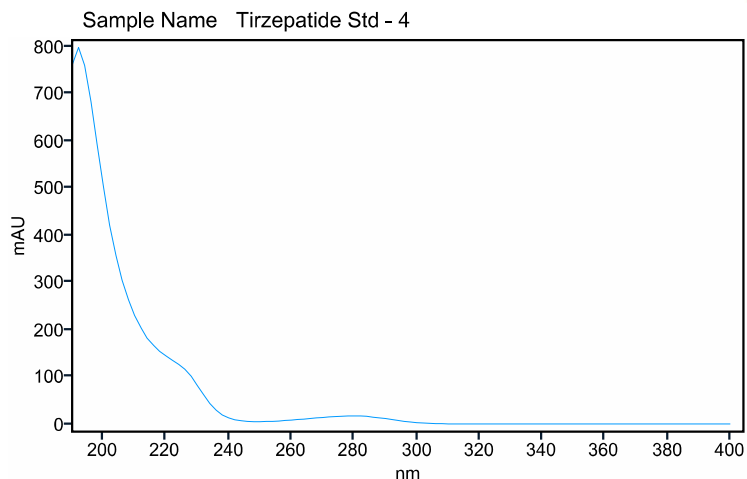
## UV Match Spectra

RT:

2.266

Compound Name:

Tirzepatide



Compound Spectra Confirm Result Confirmed

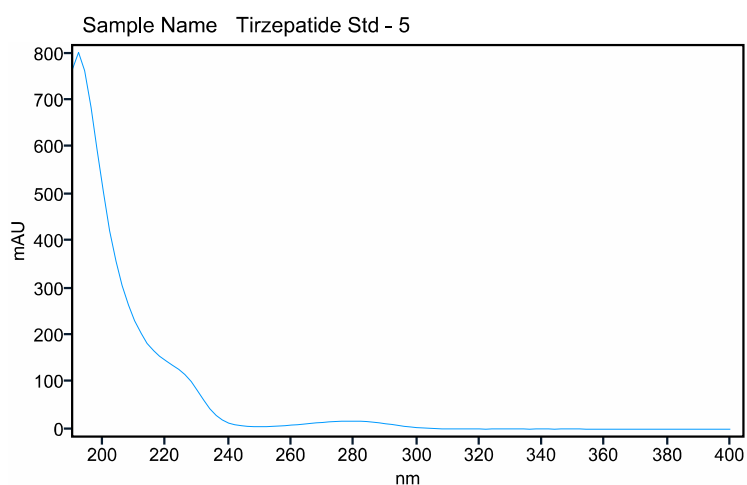
## UV Match Spectra

RT:

2.264

Compound Name:

Tirzepatide



Compound Spectra Confirm Result Confirmed

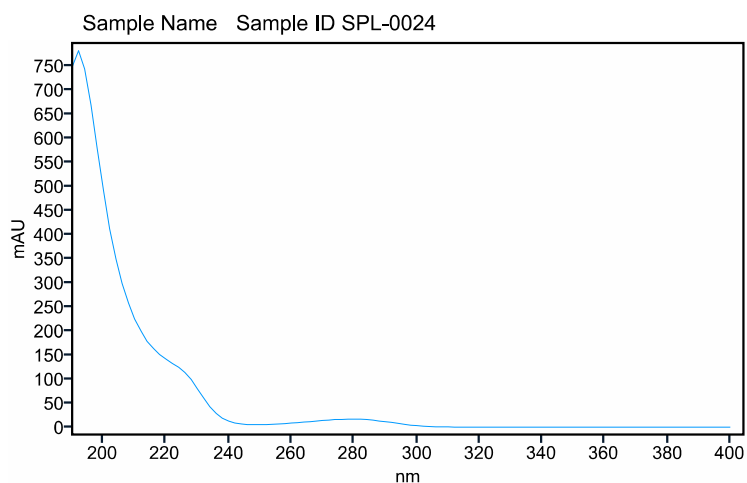
## UV Match Spectra

RT:

2.262

Compound Name:

Tirzepatide



Compound Spectra Confirm Result Confirmed

# Sample Potency and ID Report



PEPTIDE TEST



## UV Match Spectra

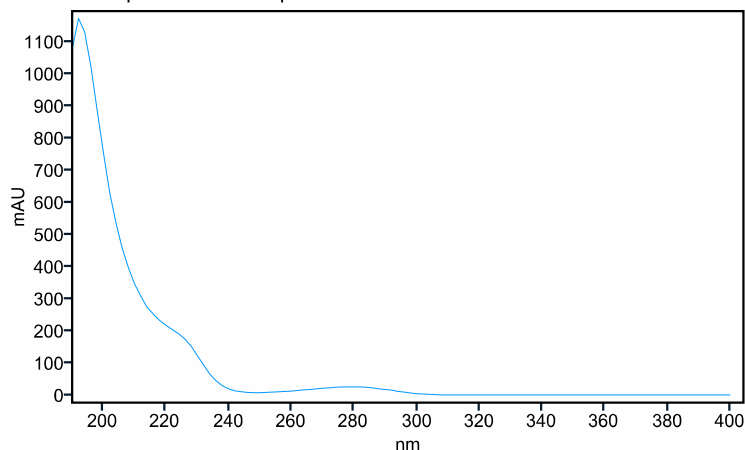
RT:

2.259

Compound Name:

Tirzepatide

Sample Name Sample ID 2409004



Compound Spectra Confirm Result Confirmed

## UV Match Spectra

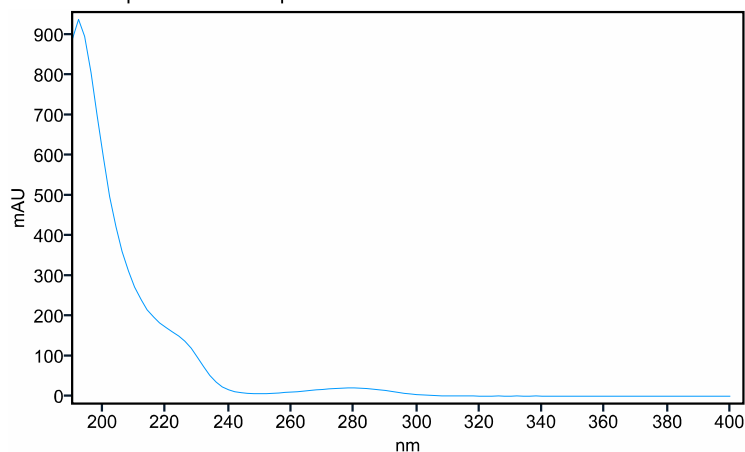
RT:

2.259

Compound Name:

Tirzepatide

Sample Name Sample ID 2409017



Compound Spectra Confirm Result Confirmed

## UV Match Spectra

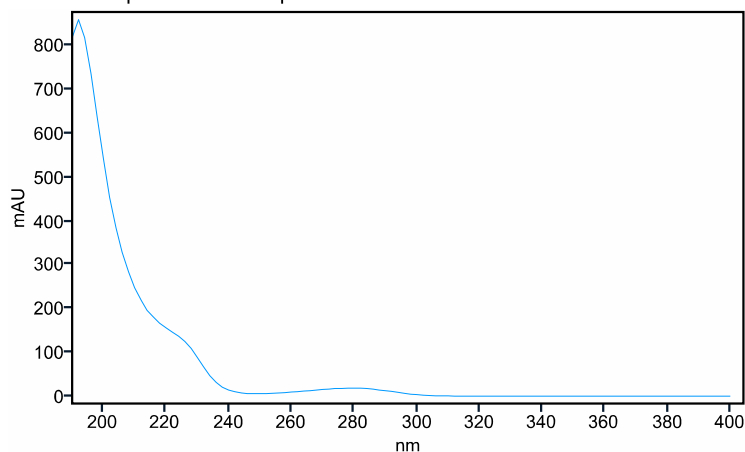
RT:

2.254

Compound Name:

Tirzepatide

Sample Name Sample ID 2409035



Compound Spectra Confirm Result Confirmed

# Sample Potency and ID Report



PEPTIDE TEST



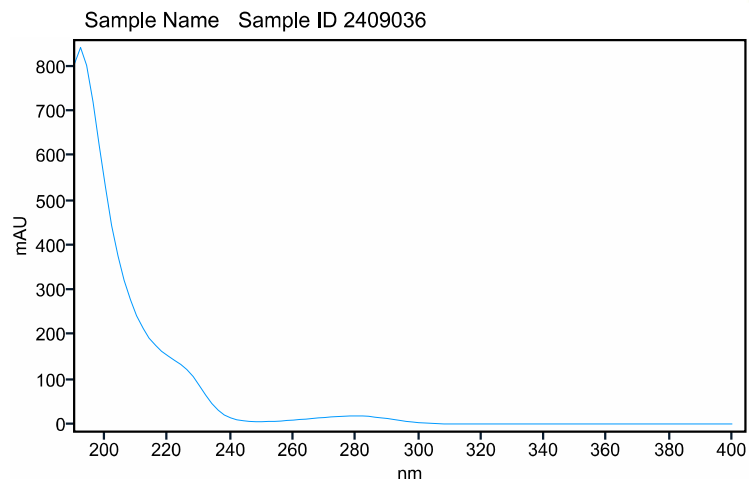
## UV Match Spectra

RT:

2.256

Compound Name:

Tirzepatide



Compound Spectra Confirm Result Confirmed

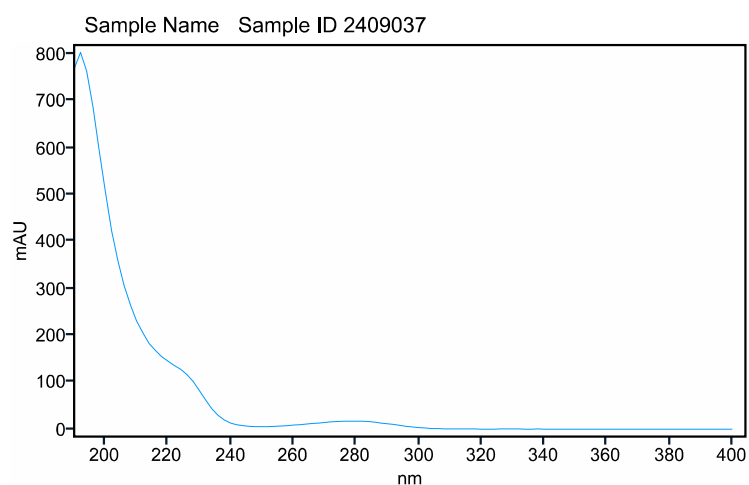
## UV Match Spectra

RT:

2.256

Compound Name:

Tirzepatide



Compound Spectra Confirm Result Confirmed

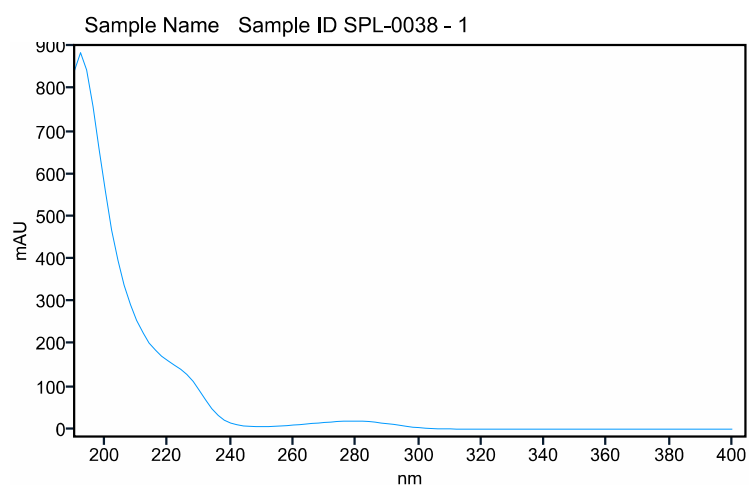
## UV Match Spectra

RT:

2.255

Compound Name:

Tirzepatide



Compound Spectra Confirm Result Confirmed

# Sample Potency and ID Report



PEPTIDE TEST



## UV Match Spectra

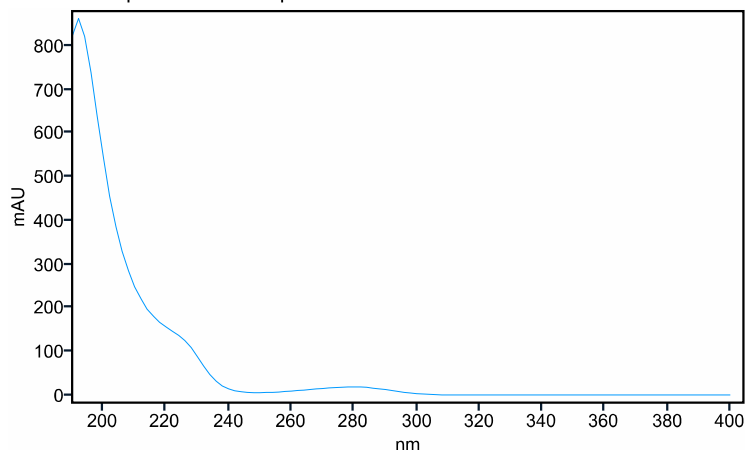
**RT:**

2.254

**Compound Name:**

Tirzepatide

Sample Name Sample ID SPL-0038 - 2



Compound Spectra Confirm Result Confirmed

## UV Match Spectra

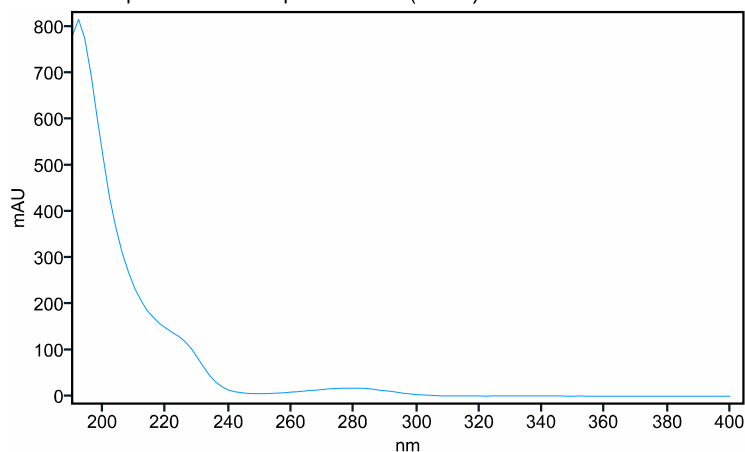
**RT:**

2.255

**Compound Name:**

Tirzepatide

Sample Name Tirzepatide Std 6 (SSC1)



Compound Spectra Confirm Result Confirmed

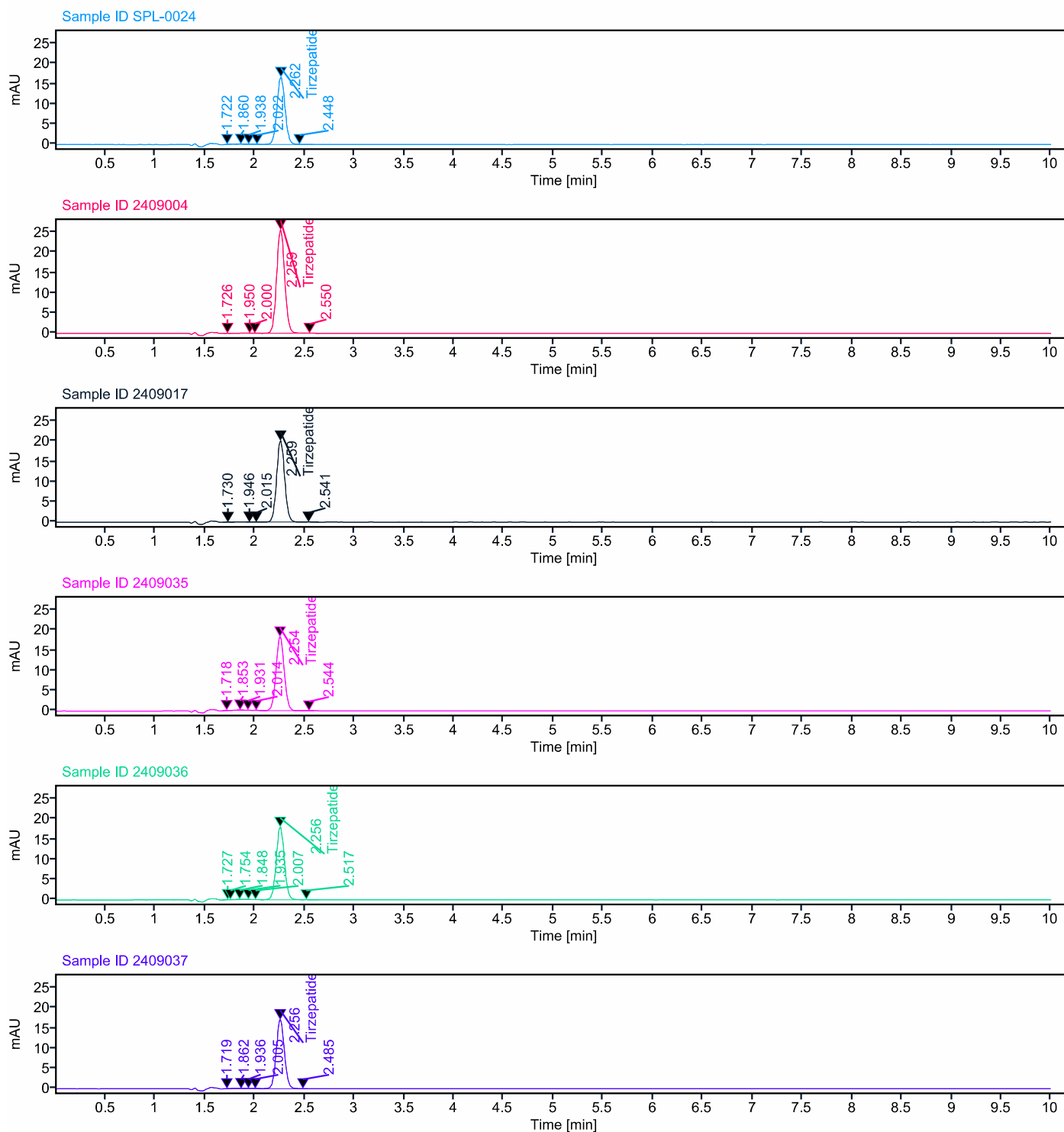


# Sample Purity Report



Sequence Name 1001\_aml\_092024

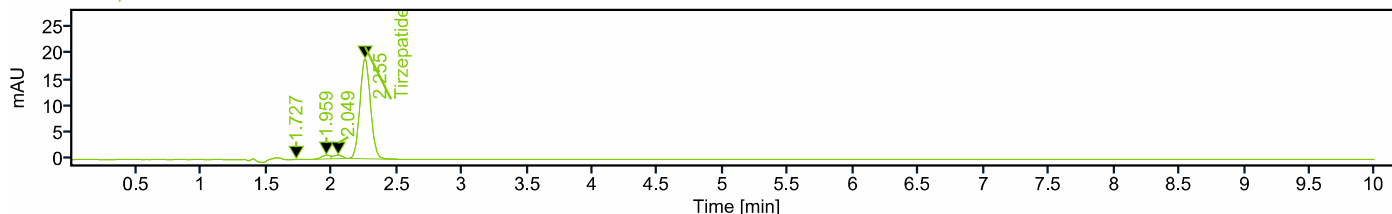
Sequence Acquired Date 2024-09-20 10:18:03-04:00



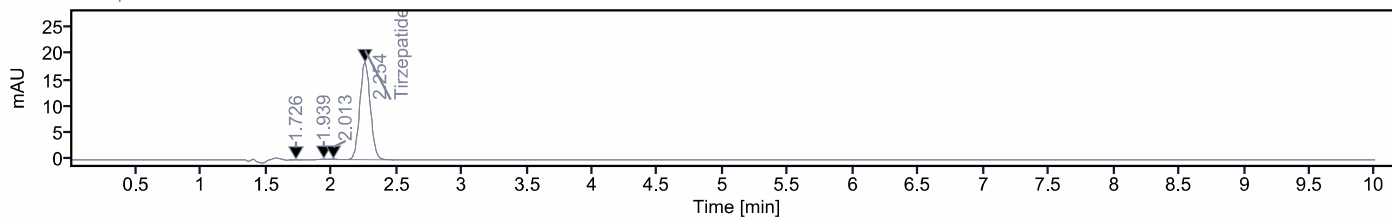
# Sample Purity Report



Sample ID SPL-0038 - 1



Sample ID SPL-0038 - 2



| Sample Name        | Name        | RT    | Area    | Peak Area Percent |
|--------------------|-------------|-------|---------|-------------------|
| Sample ID SPL-0024 |             | 1.722 | 0.081   | 0.086             |
| Sample ID SPL-0024 |             | 1.860 | 0.132   | 0.139             |
| Sample ID SPL-0024 |             | 1.938 | 0.034   | 0.035             |
| Sample ID SPL-0024 |             | 2.022 | 0.018   | 0.019             |
| Sample ID SPL-0024 | Tirzepatide | 2.262 | 94.382  | 99.638            |
| Sample ID SPL-0024 |             | 2.448 | 0.078   | 0.082             |
| Sample ID 2409004  |             | 1.726 | 0.077   | 0.053             |
| Sample ID 2409004  |             | 1.950 | 0.127   | 0.088             |
| Sample ID 2409004  |             | 2.000 | 0.140   | 0.097             |
| Sample ID 2409004  | Tirzepatide | 2.259 | 144.268 | 99.703            |
| Sample ID 2409004  |             | 2.550 | 0.086   | 0.059             |
| Sample ID 2409017  |             | 1.730 | 0.108   | 0.095             |
| Sample ID 2409017  |             | 1.946 | 0.046   | 0.040             |
| Sample ID 2409017  |             | 2.015 | 0.092   | 0.081             |
| Sample ID 2409017  | Tirzepatide | 2.259 | 113.130 | 99.555            |
| Sample ID 2409017  |             | 2.541 | 0.260   | 0.229             |
| Sample ID 2409035  |             | 1.718 | 0.419   | 0.395             |
| Sample ID 2409035  |             | 1.853 | 0.576   | 0.543             |
| Sample ID 2409035  |             | 1.931 | 0.370   | 0.348             |
| Sample ID 2409035  |             | 2.014 | 0.378   | 0.357             |
| Sample ID 2409035  | Tirzepatide | 2.254 | 104.312 | 98.332            |
| Sample ID 2409035  |             | 2.544 | 0.027   | 0.026             |
| Sample ID 2409036  |             | 1.727 | 0.182   | 0.175             |

# Sample Purity Report



| Sample Name            | Name        | RT    | Area    | Peak Area Percent |
|------------------------|-------------|-------|---------|-------------------|
| Sample ID 2409036      |             | 1.754 | 0.011   | 0.011             |
| Sample ID 2409036      |             | 1.848 | 0.576   | 0.555             |
| Sample ID 2409036      |             | 1.935 | 0.265   | 0.255             |
| Sample ID 2409036      |             | 2.007 | 0.133   | 0.128             |
| Sample ID 2409036      | Tirzepatide | 2.256 | 102.587 | 98.708            |
| Sample ID 2409036      |             | 2.517 | 0.175   | 0.168             |
| Sample ID 2409037      |             | 1.719 | 0.122   | 0.126             |
| Sample ID 2409037      |             | 1.862 | 0.034   | 0.035             |
| Sample ID 2409037      |             | 1.936 | 0.132   | 0.136             |
| Sample ID 2409037      |             | 2.005 | 0.148   | 0.152             |
| Sample ID 2409037      | Tirzepatide | 2.256 | 96.504  | 99.512            |
| Sample ID 2409037      |             | 2.485 | 0.037   | 0.038             |
| Sample ID SPL-0038 - 1 |             | 1.727 | 0.101   | 0.090             |
| Sample ID SPL-0038 - 1 |             | 1.959 | 3.242   | 2.890             |
| Sample ID SPL-0038 - 1 |             | 2.049 | 3.332   | 2.970             |
| Sample ID SPL-0038 - 1 | Tirzepatide | 2.255 | 105.510 | 94.050            |
| Sample ID SPL-0038 - 2 |             | 1.726 | 0.097   | 0.092             |
| Sample ID SPL-0038 - 2 |             | 1.939 | 0.358   | 0.342             |
| Sample ID SPL-0038 - 2 |             | 2.013 | 0.491   | 0.469             |
| Sample ID SPL-0038 - 2 | Tirzepatide | 2.254 | 103.747 | 99.096            |